

United States
Department of
Agriculture

National
Agricultural
Statistics
Service

10 (03)

Corn, Soybeans, and Wheat
Sold Through Marketing Contracts
2001 Summary

February 2003

Table of Contents

Page

Introduction
2

Highlights
3-4

Charts
5-7

Corn Sold Through Marketing Contracts, U.S., 2001
8-9

Corn Sold Through Marketing Contracts by Farm Production Region, 2001
10

Corn Sold Through Marketing Contracts by Type of Organization of Farm, 2001
11

Corn Sold Through Marketing Contracts by Economic Class of Farm, 2001
12

Identity-Preserved Corn, U.S., 2001
13

Soybeans Sold Through Marketing Contracts, U.S., 2001
14-15

Soybeans Sold Through Marketing Contracts by Farm Production Region, 2001
16

armsan03.txt

Soybeans Sold Through Marketing Contracts by Type of Organization of Farm, 2001
17

Soybeans Sold Through Marketing Contracts by Economic Class of Farm, 2001
18

Wheat Sold Through Marketing Contracts, U.S., 2001
19-20

Wheat Sold Through Marketing Contracts by Farm Production Region, 2001
21

Wheat Sold Through Marketing Contracts by Type of Organization of Farm, 2001
22

Wheat Sold Through Marketing Contracts by Economic Class of Farm, 2001
23

Farm Production Region Map
24

Survey Procedures and Reliability
27

25-

Data collection survey instrument
28-29

Introduction

Amid growing interest regarding changes in the structure of the Nation's grain and oilseed markets, the National Agricultural Statistics Service (NASS) is issuing this special report titled Corn, Soybeans, and wheat Sold Through Marketing Contracts. All information contained within this report is based on the 2001 Agricultural Resource Management Study (ARMS), covering 2001 production. This is the first time NASS has issued a report on the characteristics of contract production.

The 2001 ARMS contained questions on both marketing and production contract arrangements, as farms can have both types. However, virtually all of the reported contracts for corn, soybeans, or wheat were marketing contracts, thus limiting this report to marketing contracts. The following information is provided to understand differences between the two types of contracts.

Marketing contracts refer to verbal or written agreements between the farmer (contractee) and the buyer (contractor) generally a processing and/or marketing company that set a price (or pricing mechanism) and determine an outlet for a specified quantity of a commodity. Most management decisions remain with the farmer, who retains ownership during the production cycle. The farmer assumes all risks of production, but shares price risk with the contractor.

Marketing contracts can take many forms, including:

- forward sales of a growing crop, where the contract provides for later delivery and establishes a price before delivery;

- price setting after delivery based on a formula that considers grade and yield; and

pre-harvest pooling arrangements, in which the amount of payment received is determined by the net pool receipts for the quantity sold.

Production contracts involve paying the farmer a fee for providing management, labor, facilities, and equipment, while assigning ownership of the product to the contractor. The contract specifies in detail the production input supplied by the contractor, which may be a processor, feed mill, or another operation or business. The contract also specifies the quality and quantity of the particular commodity. Because the contractor controls the amount produced and the production practices, the contractor often dominates the terms of the contract.

Advantages of production contracts for farmers include the sharing of production and marketing risks with the contractor and the availability of financing either directly from the contractor or indirectly through other lenders who are more assured of loan repayment under this arrangement.



Highlights

According to the most recent survey information, 62,300 U.S. farms utilized more than 82,100 corn, soybean or wheat marketing contracts during 2001. This information comes from the Agricultural Resource Management Study, conducted by USDA's National Agricultural Statistics Service (NASS) in late winter and spring, 2002. The number of contracts by crop shows over 44,700 farms with corn contracts, almost 27,700 farms with soybean contracts, and almost 9,700 farms with wheat contracts.

For the 2001 crop year, 10.4 percent of the total U.S. corn production, 8.6 percent of the soybeans, and 4.8 percent of the wheat was sold through marketing contracts. When corn and soybeans are combined, 10.0 percent of their total production was sold through marketing contracts. This compares to an earlier report from USDA's Economic Research Service showing 11.0 percent of the combined 1999 corn and soybean crops sold through marketing contracts. Wheat contracts totaled 6.0 percent of the 1999 crop production.

The weighted average price received by farmers for contracted corn was \$2.14 per bushel, compared to the NASS Market Year Average price (MYA) of \$1.97 for the 2001 crop. The weighted average price for contracted soybeans was \$4.63 per bushel, compared to the MYA of \$4.38, while wheat had a contract price of \$2.98, compared to the MYA of \$2.78 per bushel. Corn farms which sold identity-preserved varieties received \$2.19 per bushel, and reported receiving an average 24 cents premium above Number 2 Yellow corn. The average contract-specified premium, above Number 2 Yellow corn, was 22 cents.

Cooperatives and elevators, combined, were by far the primary contractor group. Respectively, 69, 64, and 71 percent of contracts for corn, soybeans and wheat were held by cooperatives or elevators. The contractor group representing processors, seed companies, and feed mills handled contracts for another 20, 30, and 18 percent of corn, soybeans, and wheat, respectively.

Some interesting observations appear when comparing contract terms across the three crops. While 16 and 18 percent of the corn and soybean contracts, respectively, carried confidentiality clauses, only 8 percent of the wheat contracts did so. The percent of farms with 2 or more contracts was roughly the same for corn and soybeans, at 12 and 14 percent, while the percent of wheat farms with 2 or more contracts was

only 7 percent. The number of contracts with no specified length was roughly the same for all three crops, ranging from 15 to 19 percent of all contracts. The percent of corn contracts with penalty clauses for reduced production was 23 percent, compared to 15 and 13 percent, respectively, for soybeans and wheat.

When comparing the delivery of contract production off the farm, some additional differences show up. Although the percent of contracts delivered off the farm is comparable between crops, ranging between 79 and 85 percent, the distances traveled for contract delivery versus non-contract delivery are significantly different. The mean miles for contract production delivered off the farm is almost twice the distance of available, non-contract delivery for corn and soybeans, and more than twice the distance for wheat.

1 Based on the 1999 Agricultural Resource Management Study as released by the Economic Research Service in their website "Farm Briefing Room - Questions and Answers."

Highlights (continued)

For regions with sufficient information to publish, the percent of total production under contract was greatest in the Lake States for corn and soybeans, at 11.4 and 13.0 percent, respectively, while the Mountain States region had the highest percentage of wheat production under contract with 9.7 percent. The Mountain States region also had the highest average contract price for wheat, at \$3.26 per bushel, while the Corn Belt region was highest for corn at \$2.16 per bushel, and the Lake States held the highest price for soybeans under contract, at \$5.03 per bushel.

Across the three crops, partnerships held the highest percentage of multiple contracts, with over 20 percent of partnerships holding 2 or more contracts for corn and soybeans.

Across most domains (geographic, type of farm, or size of farm), the contractor group representing processors, seed dealers, and feed companies held a greater percentage of contract soybean production than the other two crops. The percentages ranged from a low of 18.0 percent of production for partnerships to 38.9 percent in the Corn Belt region.

Corn Sold Through Marketing Contracts: 4/ United States, 2001

Selected Characteristics	:	Units	:	All Farms
Corn for Grain 1/	:		:	
Area Harvested	:	1,000 Ac	:	68,808
Total Production	:	1,000 Bu	:	9,506,840
Marketing year average price 2/	:	Dollars/Bu	:	1.97
Farms with contracts	:	Number	:	44,735

Quantity marketed	armsan03.txt : 1,000 Bu	988,833
Total value marketed	\$1,000	2,116,832
Average price per bushel	Dollars	2.14
Total contract production 3/	Percent	10.4
Farms with specified number of contracts:		
1 contract	Percent	87.7
2 or more contracts	Percent	---
Percent marketed by contractor:		
Co-op or elevator	Percent	69.4
Seed, feed, processor, or other input company	Percent	19.7
All other contractors	Percent	10.9

Corn Sold Through Marketing Contracts: 4/
United States, 2001 (con.)

Selected Characteristics	Units	All Farms
Contracts with confidentiality clauses	Percent	16.2
Contracts with specified lengths:		
No specified contract length	Percent	16.2
1 - 6 months	Percent	48.2
7 or more months	Percent	35.6
Contracts that penalize producers for reduced production due to adverse weather	Percent	23.2
Contracts that specified points of delivery off the operation	Percent	85.2
Number of miles to contract delivery:		
0 - 10 miles	Percent	55.5
11 - 30 miles	Percent	23.4
31 or more miles	Percent	21.2
Mean miles	Number	21
Median miles	Number	10

armsan03.txt

Number of miles to nearest open
market buyer:

0 - 10 miles	Percent	67.0
11 - 30 miles	Percent	27.4
31 or more miles	Percent	5.6
Mean miles	Number	12
Median miles	Number	10

- 1/ The 2002 Crop Production Annual Summary released in January 2003 is the source of data.
- 2/ The Crop Values 2002 Summary released in February 2003 is the source of data.
- 3/ Quantity marketed divided by total production.
- 4/ Percent may not add due to rounding.

Corn Sold Through Marketing Contracts by Farm Production Region, 2001 1/ 3/

Selected Characteristics	Unit	Corn Belt	Lake States	Northern Plains	All other Regions
Corn for Grain 2/ Area Harvested	1,000 Ac	33,690	10,700	14,905	9,513
Total Production	1,000 Bu	4,981,380	1,335,700	1,978,275	1,211,485
Farms with contracts	Number	26,932	7,416	7,045	3,342
Quantity marketed	1,000 Bu	502,606	173,964	155,379	156,884
Total value marketed	\$1,000	1,083,946	354,440	327,812	350,634
Average price per bushel	Dollars	2.16	2.04	2.11	2.23
Total contract production	Percent	10.1	13.0	7.9	13.0
Farms with specified number of contracts:					
1 contract	Percent	86.0	90.8	86.0	97.8
2 or more contracts	Percent	14.0	9.2	14.0	2.2
Percent marketed by contractor:					
Co-op or elevator	Percent	69.6	80.8	79.8	45.7
Seed, feed, processor, or other input company	Percent	22.4	13.1	11.4	26.5
All other contractors	Percent	7.9	6.2	8.9	27.8
Number of miles to contract delivery:					

		armsan03.txt			
Mean miles	: Number	22	23	17	15
Median miles	: Number	10	15	10	12
Number of miles to nearest: open market buyer:	:	:	:	:	:
Mean miles	: Number	10	19	10	14
Median miles	: Number	10	10	10	10

1/ See regional map on page 24.

2/ The 2002 Crop Production Annual Summary released in January 2003 is the source of data.

3/ Percent may not add due to rounding.

Corn Sold Through Marketing Contracts by Type of Organization of Farm, 2001 1/

Selected Characteristics	Units	Individual	Partner-ship	Family Corp	All Other Farms
Farms with contracts	Number	36,771	3,954	3,785	225
Quantity marketed	1,000 Bu	683,199	183,523	112,829	9,281
Total value marketed	\$1,000	1,452,422	397,070	245,967	21,374
Average price per bushel	Dollars	2.13	2.16	2.18	2.30
Farms with specified number of contracts:					
1 contract	Percent	89.8	75.8	81.8	48.3
2 or more contracts	Percent	10.2	24.2	18.2	
Percent marketed by contractor:					
Co-op or elevator	Percent	68.8	67.9	73.5	91.8
Seed, feed, processor, or other input company	Percent	20.5	23.1	10.1	
All other contractors	Percent	10.7	9.1	16.4	
Number of miles to contract delivery:					
Mean miles	Number	17	51	17	16
Median miles	Number	10	40	22	15
Number of miles to nearest: open market buyer:					
Mean miles	Number	13	12	11	5
Median miles	Number	10	12	12	5

1/ Percent may not add due to rounding.

Corn Sold Through Marketing Contracts by Economic Class of Farm, 2001 1/

Selected Characteristics	Units	\$250,000 And Over	\$100,000- \$249,999	Less Than \$100,000
Farms with contracts	Number	18,744	14,289	11,701
Quantity marketed	1,000 Bu	734,275	162,144	92,414
Total value marketed	\$1,000	1,577,394	347,855	191,583
Average price per bushel	Dollars	2.15	2.15	2.07
Farms with specified number of contracts:				
1 contract	Percent	86.9	86.0	90.9
2 or more contracts	Percent	13.1	14.0	9.1
Percent marketed by contractor:				
Co-op or elevator	Percent	70.1	64.3	72.8
Seed, feed, processor, or other input company	Percent	19.9	19.2	18.7
All other contractors	Percent	10.0	16.5	8.5
Number of miles to contract delivery:				
Mean miles	Number	18	27	18
Median miles	Number	10	10	10
Number of miles to nearest open market buyer:				
Mean miles	Number	12	12	13
Median miles	Number	10	10	10

1/ Percent may not add due to rounding.

Farms that Harvested Identity-Preserved types of Corn:
United States, 2001

Selected Characteristics	Units	All Farms
Farms with Identity-preserved types of corn	Number	3,942

Acres harvested	armsan03.txt	Acres	1,096,106
Total production		Bushels	167,593,718
Average prices received per bushel		Dollars	2.19
Premium above the #2 yellow corn actually received per bushel		Cents	24
Premium above the #2 yellow corn specified in the contract per bushel		Cents	22

Soybeans Sold Through Marketing Contracts: 4/
United States, 2001

Selected Characteristics	Units	All Farms
Soybeans for Grain 1/ Area Harvested	1,000 Ac	72,975
Total Production	1,000 Bu	2,890,682
Marketing year average price 2/	Dollars/Bu	4.38
Farms with contracts	Number	27,686
Quantity marketed	1,000 Bu	247,215
Total value marketed	\$1,000	1,145,661
Average price per bushel	Dollars	4.63
Total contract production 3/	Percent	8.6
Farms with specified number of contracts:		
1 contract	Percent	86.0
2 or more contracts	Percent	14.0
Percent marketed by contractor:		
Co-op or elevator	Percent	63.5
Seed, feed, processor, or other input company	Percent	29.5
All other contractors	Percent	7.0

Soybeans Sold Through Marketing Contracts: 4/
United States, 2001 (con.)

Selected Characteristics	Units	All Farms
Contracts with confidentiality clauses	Percent	17.9
Contracts with specified lengths:		
No specified contract length	Percent	19.5
1 - 6 months	Percent	49.0
7 or more months	Percent	31.5
Contracts that penalize producers for reduced production due to adverse weather	Percent	15.4
Contracts that specified points of delivery off the operation	Percent	83.2
Number of miles to contract delivery:		
0 - 10 miles	Percent	47.4
11 - 30 miles	Percent	27.3
31 or more miles	Percent	25.2
Mean miles	Number	27
Median miles	Number	15
Number of miles to nearest open market buyer:		
0 - 10 miles	Percent	65.3
11 - 30 miles	Percent	24.8
31 or more miles	Percent	9.9
Mean miles	Number	14
Median miles	Number	10

1/ The 2002 Crop Production Annual Summary released in January 2003 is the source of data.

2/ The Crop Values 2002 Summary released in February 2003 is the source of data.

3/ Quantity marketed divided by total production.

4/ Percent may not add due to rounding.

Soybeans Sold Through Marketing Contracts by Farm Production Region, 2001 1/ 3/

Selected Characteristics	Unit	Corn Belt	Lake States	All Other Regions
Soybeans for Grain 2/				
Area Harvested	1,000 Ac	36,610	10,900	25,465
Total Production	1,000 Bu	1,606,270	388,390	896,022

armsan03.txt

Farms with contracts	: Number :	16,133	4,863	6,690
Quantity marketed	: 1,000 Bu :	144,241	44,239	58,735
Total value marketed	: \$1,000 :	644,211	222,610	278,840
Average price per bushel	: Dollars :	4.47	5.03	4.75
Total contract production	: Percent :	9.0	11.4	6.6
Farms with specified number of contracts:	:	:	:	:
1 contract	: Percent :	89.2	91.6	74.3
2 or more contracts	: Percent :	10.9	8.4	25.7
Percent marketed by contractor:	:	:	:	:
Co-op or elevator	: Percent :	57.9	66.6	75.0
Seed, feed, processor, or other input company	: Percent :	38.9	23.7	10.8
All other contractors	: Percent :	3.2	9.7	14.2
Number of miles to contract delivery:	:	:	:	:
Mean miles	: Number :	27	29	25
Median miles	: Number :	10	6	20
Number of miles to nearest open market buyer:	:	:	:	:
Mean miles	: Number :	10	19	18
Median miles	: Number :	8	5	20

1/ See regional map on page 24.

2/ The 2002 Crop Production Annual Summary released in January 2003 is the source of data.

3/ Percent may not add due to rounding.

Soybeans Sold Through Mktg Contracts by Type of Organization of Farm, 2001 1/

Selected Characteristics	: Units :	: Individual :	: Partner-ship :	: Family Corp :	: All other Farms :
Farms with contracts	: Number :	22,572	2,450	2,565	100
Quantity marketed	: 1,000 Bu :	170,164	49,041	25,326	2,684
Total value marketed	: \$1,000 :	772,893	235,567	124,959	12,243
Average price per bushel	: Dollars :	4.54	4.80	4.93	4.56

armsan03.txt

Farms with specified
number of contracts:

1 contract	Percent	86.1	79.8	92.2	50.2
2 or more contracts	Percent	13.9	20.2	7.8	49.8
Percent marketed by contractor:					
Co-op or elevator	Percent	60.0	78.8	60.2	38.5
Seed, feed, processor, or other input company	Percent	32.0	18.0	31.8	61.5
All other contractors	Percent	8.1	3.2	8.0	0.0
Number of miles to contract delivery:					
Mean miles	Number	27	43	19	10
Median miles	Number	15	15	15	10
Number of miles to nearest open market buyer:					
Mean miles	Number	15	17	10	(D)
Median miles	Number	10	8	7	(D)

D/ Withheld to avoid disclosure.

1/ Percent may not add due to rounding.

Soybeans Sold Through Marketing Contracts by Economic Class of Farm, 2001 1/

Selected Characteristics	Units	\$250,000 And Over	\$100,000- \$249,999	Less Than \$100,000
Farms with contracts	Number	11,004	7,500	9,182
Quantity marketed	1,000 Bu	162,464	44,011	40,740
Total value marketed	\$1,000	764,793	200,894	179,974
Average price per bushel	Dollars	4.71	4.56	4.42
Farms with specified number of contracts:				
1 contract	Percent	89.5	92.4	76.5
2 or more contracts	Percent	10.5	7.7	23.5
Percent marketed by contractor:				
Co-op or elevator	Percent	64.1	68.4	56.0

armsan03.txt

Seed, feed, processor, or other input company	Percent	30.5	21.1	34.5
All other contractors	Percent	5.4	10.5	9.5
Number of miles to contract delivery:				
Mean miles	Number	37	16	21
Median miles	Number	15	8	20
Number of miles to nearest open market buyer:				
Mean miles	Number	12	13	18
Median miles	Number	8	10	12

1/ Percent may not add due to rounding.

wheat Sold Through Marketing Contracts: 4/
United States, 2001

Selected Characteristics	Units	All Farms
wheat for Grain 1/ Area Harvested	1,000 Ac	48,633
Total Production	1,000 Bu	1,957,043
Marketing year average price 2/	Dollars/Bu	2.78
Farms with contracts	Number	9,680
Quantity marketed	1,000 Bu	94,492
Total value marketed	\$1,000	281,739
Average price per bushel	Dollars	2.98
Total contract production 3/	Percent	4.8
Farms with specified number of contracts:		
1 contract	Percent	92.6
2 or more contracts	Percent	7.4
Percent marketed by contractor:		
Co-op or elevator	Percent	70.5
Seed, feed, processor, or other input company	Percent	18.2
All other contractors	Percent	11.3

Wheat Sold Through Marketing Contracts: 4/
United States, 2001 (con.)

Selected Characteristics	Units	All Farms
Contracts with confidentiality clauses	Percent	8.0
Contracts with specified lengths:		
No specified contract length	Percent	15.5
1 - 6 months	Percent	46.1
7 or more months	Percent	38.4
Contracts that penalize producers for reduced production due to adverse weather	Percent	12.7
Contracts that specified points of delivery off the operation	Percent	79.46
Number of miles to contract delivery:		
0 - 10 miles	Percent	47.1
11 - 30 miles	Percent	34.6
31 or more miles	Percent	18.3
Mean miles	Number	28
Median miles	Number	12
Number of miles to nearest open market buyer:		
0 - 10 miles	Percent	62.1
11 - 30 miles	Percent	29.4
31 or more miles	Percent	8.6
Mean miles	Number	13
Median miles	Number	9

1/ The 2002 Crop Production Annual Summary released in January 2003 is the source of data.

2/ The Crop Values 2002 Summary released in February 2003 is the source of data.

3/ Quantity marketed divided by total production.

4/ Percent may not add due to rounding.

Wheat Sold Through Marketing Contracts by Farm Production Region, 2001 1/ 3/

Selected Characteristics	:	Unit	:	Corn Belt	:	Northern Plains	:	Mountain	:	All Other Regions
--------------------------	---	------	---	-----------	---	-----------------	---	----------	---	-------------------

Wheat for Grain 2/ Area Harvested	: 1,000 Ac:	2,778	20,924	8,062	16,869
Total Production	: 1,000 Bu:	171,312	756,366	276,917	752,448
Farms with contracts	: Number :	1,666	1,946	1,636	4,432
Quantity marketed	: 1,000 Bu:	6,585	18,528	26,878	42,501
Total value marketed	: \$1,000 :	16,793	54,863	87,597	122,486
Average price per bushel	: Dollars :	2.55	2.96	3.26	2.88
Total contract production	: Percent :	3.8	2.4	9.7	5.6
Farms with specified number of contracts:	: :				
1 contract	: Percent :	100.0	99.5	59.0	99.1
2 or more contracts	: Percent :	0.0	0.5	41.0	0.9
Percent marketed by contractor:	: :				
Co-op or elevator	: Percent :	64.1	68.4	74.2	70.2
Seed, feed, processor, or other input company	: Percent :	19.2	12.4	9.5	26.0
All other contractors	: Percent :	16.7	19.1	16.4	3.8
Number of miles to contract delivery:	: :				
Mean miles	: Number :	8	13	56	24
Median miles	: Number :	7	12	14	7
Number of miles to nearest open market buyer:	: :				
Mean miles	: Number :	6	9	21	13
Median miles	: Number :	3	6	14	6

1/ See regional map on page 24.

2/ The 2002 Crop Production Annual Summary released in January 2003 is the source of data.

3/ Percent may not add due to rounding.

Wheat Sold Through Marketing Contracts by Type of Organization of Farm, 2001 1/

Selected Characteristics	Units	Individual	All other Farms
Farms with contracts	Number	7,109	2,571

armsan03.txt

Quantity marketed	: 1,000 Bu:	51,473	43,019
Total value marketed	: \$1,000	149,509	132,230
Average price per bushel	: Dollars	2.90	3.07
Farms with specified number of contracts:			
1 contract	: Percent	96.6	81.3
2 or more contracts	: Percent	3.4	18.7
Percent marketed by contractor:			
Co-op or elevator	: Percent	61.3	81.6
Seed, feed, processor, or other input company	: Percent	24.0	11.2
All other contractors	: Percent	14.8	7.1
Number of miles to contract delivery:			
Mean miles	: Number	33	20
Median miles	: Number	10	14
Number of miles to nearest open market buyer:			
Mean miles	: Number	12	16
Median miles	: Number	6	14

1/ Percent may not add due to rounding.

wheat Sold Through Marketing Contracts by Economic Class of Farm, 2001 1/

Selected Characteristics	: Units	: \$250,000 : And Over	: \$100,000- : \$249,999	: Less Than : \$100,000
Farms with contracts	: Number	4,033	2,118	3,529
Quantity marketed	: 1,000 Bu	61,122	16,208	17,162
Total value marketed	: \$1,000	182,686	46,955	52,099
Average price per bushel	: Dollars	2.99	2.90	3.04
Farms with specified number of contracts:				
1 contract	: Percent	91.9	95.5	91.6
2 or more contracts	: Percent	8.1	4.5	8.4

armsan03.txt

Percent marketed by
contractor:

Co-op or elevator	Percent	75.9	47.1	73.7
Seed, feed, processor, or other input company	Percent	18.9	23.4	10.8
All other contractors	Percent	5.3	29.6	15.5
Number of miles to contract delivery:				
Mean miles	Number	44	15	19
Median miles	Number	8	12	12
Number of miles to nearest open market buyer:				
Mean miles	Number	17	17	10
Median miles	Number	10	12	5

1/ Percent may not add due to rounding.

Farm Production Regions

Northeast	CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT
Lake States	MI, MN, WI.
Corn Belt	IL, IN, IA, MO, OH.
Northern Plains	KS, NE, ND, SD.
Appalachian	KY, NC, TN, VA, WV.
Southeast	AL, FL, GA, SC.
Delta States	AR, LA, MS.
Southern Plains	OK, TX.
Mountain	AZ, CO, ID, MT, NV, NM, UT, WY.
Pacific	CA, OR, WA.

Survey Procedures and Reliability

Survey Procedures: The contract data contained in this publication are the result of a sample survey of nearly 13,313 farms and ranches contacted in February through April 2002 in all States except Alaska and Hawaii. The Agricultural Resource Management Study (ARMS) covers the population of farms in the 48 contiguous States defined as "all establishments which sold or would normally have sold at least \$1,000 of agricultural products during the previous year." These establishments are not only traditional agricultural operations such as grain farms and dairy operations, but also specialty farms such as orchards, nurseries, and those producing fish in captivity.

The Agricultural Resource Management Study is a multiple frame survey which utilizes a list frame and a complementary area frame. The list frame typically represents the larger, more specialized operations

contributing the greater portion of the data expansions. The area frame provides coverage for the smaller operations that are not available for sampling from the list. Since all of the operators on the list frame are also part of the area frame, rigorous procedures are followed to be certain that an operation is only included in the data expansions once. These multiple frame expansions are unbiased and provide more precise expansions than could be obtained by using the area frame alone.

Special training occurs for field enumerators prior to the Agricultural Resource Management Study period to insure consistent and proper execution of survey procedures in farm determination, data collection, and editing of detailed expense and income data. All questionnaires are personally enumerated.

Field and office staff review data using both manual and computer-based procedures. Questionnaires are reviewed for consistency, data relationships, and completeness. Past analysis has shown approximately half of the edits simply correct for data misplacement errors. In cases where respondents are unable or unwilling to report data for any item on the questionnaire, the field enumerators or survey statisticians can impute a value. For income, related debt/asset data, and a few expense items statisticians are allowed to enter a (-1) to indicate a missing value and an algorithm within the edit will compute and input the missing value based on similar size and type of operations. The computer generated imputation has not been implemented for all expenditure data because NASS analysis has shown there are significantly fewer missing data cells on expenses than on income. Missing values for expense items, where no data are reported, are edited to a positive value based on other reported values from similar operations by the survey statistician.

Data Comparability: This publication includes mostly new and previously unpublished statistics for 2001 corn, soybeans and wheat sold through marketing contracts. The data are presented at the following levels or domains: National, by geographic region, Farm Production Region, Economic Sales Class, and type of farm organization. Efforts have been made to identify comparable statistics, but few exist at the National or domain levels published herein.

Data Reliability: All data published in this report are survey indications expanded to represent U.S. and specified domain levels. No effort has been made to publish best estimates, largely because there is little or no recorded history on the data items, and a lack of any comparable, alternative information from other known sources.

Survey Procedures and Reliability (continued)

Two types of errors, sampling and nonsampling, are possible in an indication based on a sample survey. Both types affect the "precision" of the data. Sampling error occurs because a complete census is not taken. The sampling error measures the variation in statistics from the average of all possible samples. A statistic of 100 with a sampling error of 1 would mean that chances are 19 out of 20 that the statistics from all possible samples averaged together would be between 98 and 102, which is the survey estimate plus or minus two times the sampling error. The sampling error expressed as a percent of the estimate is called the relative sampling error, or coefficient of variation.

Data from sample surveys are also influenced by non-sampling errors which are not always measurable or known. Non-sampling errors may be introduced by enumerators, respondents, questionnaire design, or field

armsan03.txt
and office procedures. Efforts are made to minimize these errors and maintain survey accuracy through proper training of all individuals involved with the survey, detailed review and verification of data, and analysis of data for comparability and consistency.

Relative sampling errors are provided for the major data items published in this report, with a range of values for each commodity representing the various domains within each major data item. For example: the number of farms with corn contracts at the U.S. level had a relative sampling error of 6.0 percent, while farms with corn contracts in the Lake States geographic region had a relative sampling error of 19.3 percent. For this report, relative sampling errors are listed on the next page.

Selected Characteristic	Relative Sampling Errors		
	Corn	Soybeans	
Wheat			
Farms with contracts	6.0 - 19.3 percent	10.4 - 24.7 percent	12.1
- 31.5 percent			
Quantity marketed	9.6 - 22.1 percent	10.6 - 22.0 percent	16.7
- 27.0 percent			
Total value marketed	9.4 - 21.6 percent	10.8 - 22.5 percent	15.8
- 25.7 percent			
Average price per bushel	0.9 - 2.0 percent	1.8 - 4.6 percent	1.7
- 3.4 percent			
Farms with specified number of number of contracts:			
1 contract	3.1 - 11.8 percent	4.0 - 13.9 percent	1.8
- 28.0 percent			
2 or more contracts	21.8 - 47.7 percent	26.4 - 66.5 percent	37.6
- 71.9 percent			
Percent marketed by contractor:			
Co-op or elevator	4.9 - 13.9 percent	6.0 - 16.0 percent	9.3
- 37.7 percent			
Seed, feed, processor, or other input company	16.4 - 45.9 percent	14.9 - 47.0 percent	
31.1 - 49.1 percent			
All other contractors	17.9 - 58.4 percent	27.3 - 62.3 percent	
42.9 - 62.0 percent			
Contracts with confidentiality clauses	25.3 - 92.2 percent	23.8 - 80.2 percent	
53.9 - 121.5 percent			

Contracts with specified lengths:

No specified contract length 39.7 - 100.4 percent	21.1 - 77.4 percent	36.3 - 111.6 percent	
1 - 6 months 22.0 - 37.4 percent	9.2 - 49.4 percent	10.6 - 31.2 percent	
7 or more months 30.4 - 59.9 percent	13.3 - 49.0 percent	20.3 - 79.3 percent	
Contracts that penalize producers for reduced production due to adverse weather 51.8 - 80.1 percent	19.3 - 71.6 percent	26.4 - 94.9 percent	
Contracts that specified points of delivery off the operation 7.7 - 18.8 percent	1.6 - 22.8 percent	7.3 - 42.0 percent	
Number of miles one-way to the point of delivery:			
0 - 10 miles 17.0 - 63.0 percent	10.9 - 61.0 percent	13.4 - 42.9 percent	
11 - 30 miles 29.1 - 38.7 percent	17.7 - 60.0 percent	26.6 - 75.9 percent	
31 or more miles 34.8 - 78.6 percent	21.8 - 63.0 percent	26.6 - 57.4 percent	
If the operator sold the commodity on the open market, the number of miles traveled one-way to the nearest buyer:			
0 - 10 miles - 61.3 percent	6.0 - 47.3 percent	11.7 - 40.4 percent	6.0
11 - 30 miles 27.5 - 47.1 percent	16.7 - 66.3 percent	37.1 - 63.4 percent	
31 or more miles 54.4 - 77.8 percent	46.3 - 105.2 percent	31.6 - 114.3 percent	
All Other Regions; Economic Sales Class Less Than \$100,000; All Other Type of Organization of Farms - 120.0 percent	1.8 - 111.1 percent	1.3 - 85.6 percent	1.8
Identity-Preserved types of Corn applicable	4.0 - 21.0 percent	Not applicable	Not

Released February 27, 2003, by the National Agricultural Statistics Service (NASS),
Agricultural Statistics Board, U.S. Department of Agriculture. For information on
"Corn,
Soybeans, and wheat Sold Through Marketing Contracts" call Scott Cox at
202-720-6146, office
hours 7:30 a.m. to 4:00 p.m. ET.

The United States Department of Agriculture (USDA) prohibits discrimination in all its programs on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, D.C., 20250-9410, or call 202-720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

ACCESS TO REPORTS !!

For your convenience, there are several ways to obtain NASS reports , data products and services:

INTERNET ACCESS

All NASS reports are available free of charge on the worldwide Internet. For access, connect to the Internet and go to the NASS Home Page at: <http://www.usda.gov/nass/>. Select today's Reports " or Publications and then Reports Calendar or Publications and then Search, by Title or Subject.

E-MAIL SUBSCRIPTION

All NASS reports are available by subscription free of charge direct to your e-mail address. Starting with the NASS Home Page at <http://www.usda.gov/nass/>, click on Publications, then click on the Subscribe by E-mail button which takes you to the page describing e-mail delivery of reports. Finally, click on Subscription Page and follow the instructions.

AUTOFAX ACCESS

NASSFax service is available for some reports from your fax machine. Please call 202-720 -2000, using the handset attached to your fax. Respond to the voice prompts. Document 0411 is a list of available reports.

----- PRINTED REPORTS OR DATA PRODUCTS

CALL OUR TOLL-FREE ORDER DESK: 800-999-6779 (U.S. and Canada)
other areas, please call 703-605-6220 FAX: 703-605-6900
(Visa, MasterCard, check, or money order acceptable for payment.)

ASSISTANCE

For assistance with general agricultural statistics or further information about NASS or its products or services, contact the Agricultural Statistics Hotline at 800-727-9540, 7:30 a.m. to

4:00 p.m. ET, or e-mail:
nass@nass.usda.gov.

armsan03.txt